

This application is submitted in the name of inventor Bruce M. Ruana.

SPECIFICATION

RELEASABLY ATTACHABLE GRIP

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation-in-part of co-pending United States Patent Application Serial No. 10/145,566, filed on May 13, 2002, and a continuation-in-part of co-pending United States Patent Application Serial No. 10/454,770, filed on June 3, 2003, both are continuation-in-part applications of United States Patent Application Serial No. 09/874,940, filed on June 4, 2001.

BACKGROUND

[0002] The present invention relates to grips for hand railings or other hand support systems, and more specifically, to grips that are releasably adhered to railings or other hand support systems.

[0003] Hand railings are in use throughout the world to assist in human activity such as standing, sitting down, ascending and descending a stairway, entering or exiting a moving vehicle or shower, walking, etc. Maintaining a

secure, comfortable grip is extremely important when operating or using various hand-held apparatuses or, more importantly, simply for safety purposes when grasping any type of railing. Bare railings are used for hand supports by users, standing, or sitting, or while entering or exiting a vehicle. Bare railings, whether they are constructed from any type of metal, plastic, wood, glass, concrete or composite material can be slippery, or coarse and inconvenient to hold onto with bare hands. Furthermore, uncovered railings located in moving vehicles such as subway train cars, light rail transit cars, transit buses, trams, street cars, trolley cars, recreational vehicles, boats, etc., are unsafe when the vehicle is in motion and especially when turning. Typically, such railings are cylindrical or another similar shape made for the human hand to grasp. Additionally, these railings are usually constructed from durable metal, such as stainless steel, but may also be constructed from wood or various other substances.

[0004] Such typical hand railings, however, do not provide a positive gripping surface, which would still further assist in the corresponding human activity associated with the hand railing. The grips to date involve either railings with built in grips or grips that are, for the most part, permanently attached to the railings, while other grips are not attached at all, rather they are easily removed and transferred from bar to bar.

[0005] To date, no grips have been designed which will conform to any railing surface or shape and which are releasably attachable to such railing surface. Hence, there is a need for a grip which will conform to any railing or grab bar and which will attach to any surface regardless of the type of surface or type of material used as the grip and a grip that is releasably attachable.

SUMMARY

[0006] The present invention is a method, system and device for providing a secure, resilient gripping surface on a railing, surface, feature, grab-bar, or other hand support system. The grip of the present invention is designed to provide a secure, resilient gripping surface on any railing, surface, feature, grab bar, or hand support system surface that is grasped by a hand. The grip is preferably utilized on a railing, surface, feature, or other hand support system. However, it is readily apparent that the grip could also be used on other structures, such as support poles beams, and the like.

[0007] In one aspect of the present invention, a flexible grip is provided which is easily secured to a railing, surface or hand support system by folding the grip around the railing or hand support system. The grip may fully cover the railing or surface, feature, or it may be artfully folded or it may be partially or fully folded. The grip of this invention will provide a comfortable, resilient gripping surface which will enhance the safety of a railing, surface, feature, or

hand support system by preventing slipping, hand abrasions or other dangers associated with railings, surfaces, or hand support systems.

[0008] In one aspect, the grip of the present invention comprises a skin layer having a top surface and a bottom surface, and a four-way stretchable material layer having a top surface and a bottom surface. The top surface of the four-way stretchable material layer is permanently adhered to the bottom surface of the skin layer. The bottom surface of the four-way stretchable material layer is releasably attached to the surface. That is, the material can be securely applied to the surface, and can be removed easily in the future.

[0009] The skin layer may be formed from any material, which will provide a safe and secure gripping surface. Some examples of possible skin materials include expanded vinyl, which is vinyl with a layer of foam that imparts a soft, textured feel; leather; plastic sheeting; plastic roll stock; any type of foam product; polyurethane; polyester; felt; cloth; urethane; woven fabrics; rubber material; paper material; and foil material. Any of the previously mentioned materials can be supported or unsupported. Similarly, the four-way stretchable material may comprise any material that can be simultaneously stretched in four directions, such as a polyester material; an example is MYLAR®.

[0010] The grip of the present invention may have tapered edges on its lengthwise sides so that when the grip is coiled around a corner of a railing or other hand support system and the edges overlap, the thickness of the grip remains constant. As an alternative to folding the grip such that the edges overlap, the grip may be folded so that the edges do not overlap, thus providing additional friction for the user.

[0011] In another feature of the present invention, the grip also inherently serves as an excellent insulator against hot and cold environments. For example, a metal railing in the winter is very cold and a person could potentially be harmed. The grip insulates against the cold and protects the user. In contrast, for example, in a hot environment, a metal railing could potentially burn a user. The grip insulates against and protects the user from burns from a hot railing.

[0012] The grip of the present invention appeals to the sensory perceptions of humans. The grip provides a surface with a texture, easily sensed through tactile sense, for easy recognition of the railing or pole and support for the user. The grip can provide visual cues (i.e., graphics or luminescence) to allow for easier visual recognition of the railing or pole in dim or dark environments. The grip can also have integral with its body, a germ-killing agent to kill germs present on the railing or pole. In some case, an odor element can be disposed on the grip for triggering olfactory senses. For the sight-impaired, the grip can also provide

an audible feature (or a sound-emitting device) to enable the sight-impaired to determine a location relative to the grip. This can also be accomplished using Braille language symbols.

[0013] One method of manufacturing the grip of the present invention comprises providing a skin layer that has a top surface for gripping and a bottom surface to which a permanent adhesive applied. Next, a four-way stretchable material that has a top surface and a bottom surface is permanently attached to the bottom surface of the skin layer. Finally, the bottom surface of the four-way stretchable material is releasably adhered to the railing or surface.

[0014] Another method of manufacturing the grip of the present invention comprises providing a skin layer, which has a top surface for gripping and a bottom surface to which a permanent adhesive is applied. Next, a backing layer is provided, which has a top surface and a bottom surface. The top surface of the backing layer is adhered to the bottom surface of the skin layer. Next, a four-way stretchable material layer with a top surface and a bottom surface is permanently attached to the backing layer by adhering the backing layer bottom surface to the four-way stretchable layer top surface. Finally, the four-way stretchable material is releasably adhered to the railing or surface.

[0015] The system of the present invention is designed for providing a secure, safe, releasably attachable grip on a railing or surface. The system comprises a grip having a four-way stretchable layer with an inner surface and an outer surface and a skin layer with an inner surface and an outer surface, the inner surface of the skin layer is adhered to the outer surface of the four-way stretchable layer. The inner surface of the four-way stretchable layer is releasably adhered to the railing or surface.

[0016] Another system of the present invention is also designed for providing a secure, safe, releasably attachable grip on a railing or surface. The system comprises a grip having a backing layer with an inner surface and an outer surface and a skin layer with an inner surface and an outer surface, the inner surface of the skin layer is adhered to the outer surface of the backing layer. The bottom surface of the backing layer is permanently adhered to a four-way stretchable layer with an inner surface and an outer surface. The inner surface of the four-way stretchable layer is releasably adhered to the railing or surface.

[0017] As set forth above, the grip of the present invention may have tapered edges on its lengthwise sides so that when the grip is coiled around a railing, surface or other hand support system and the edges overlap, the thickness of the grip remains constant. As an alternative to coiling the grip such that the edges

overlap, the grip may be coiled so that the edges do not overlap, thus providing additional friction for the user.

[0018] One method of placing the grip of the present invention on the corner or straight length of a railing or surface comprises providing a railing or surface and coiling the tapered edge grip of the present invention around the railing or surface such that the tapered edges of the grip overlap. The length of the railing or surface may be fully covered by the grip such that the thickness of the grip remains constant or, in the alternative, the edges may not overlap to provide additional friction for the user.

[0019] Another method of placing the grip of the present invention on a railing or surface comprises providing a railing having a length and alignment targets in a parallel line along its length. Next, placing the grip so that the center lengthwise axis of the grip is centered on the axis parallel to the length of the railing or surface. The grip of the present invention can have alignment targets disposed along an axis parallel to the lengthwise edge of the grip and the grip folds around the railing or surface such that the alignment targets of the grip align with the alignment targets of the railing or surface and the edges of the grip abut when folded around the railing or surface.

[0020] The grip of this invention will provide a positive gripping surface for any type of railing or surface using any type of material as a grip and provide a safe, uniform gripping surface for the length of the railing's surface. Moreover, there is a need for a method of manufacturing for grips and a system for providing grips that are releasably adhered to a railing, surface or hand support system. Finally, there is a need for a method of placing the grip of the present invention on to a railing, surface or other hand support system.

BRIEF DESCRIPTION OF THE DRAWINGS

[0021] Referring now to the figures, wherein like elements are numbered alike:

[0022] FIG. 1 is a side view of an embodiment of the grip;

[0023] FIG. 2 is perspective view of the grip of FIG. 1;

[0024] FIG. 3 is an embodiment of a grip having tapered edges;

[0025] FIG. 4A is a side view of another embodiment of the grip;

[0026] FIG. 4B is a side view of another embodiment of the grip;

[0027] FIG. 5 is perspective view of the grip of FIG. 4A;

[0028] FIG. 6 is an embodiment of a grip having tapered edges;

[0029] FIGS. 7A through 7C illustrates a method for the manufacture of the grip of FIG. 1;

[0030] FIGS. 8A through 8E illustrates a method for the manufacture of the grip of FIG. 4A;

[0031] FIG. 9 illustrates a method of folding the grip of FIG. 1;

[0032] FIG. 10 illustrates a method of folding the grip of FIG. 4A;

[0033] FIG. 11 illustrates a method of folding the grip of FIG. 1 or FIG. 4A;

[0034] FIG. 12 illustrates a method of coiling the grip of FIG. 3 or FIG. 6;

[0035] FIG. 13 illustrates the grip having light emitting means incorporated within the grip;

[0036] FIG. 14 illustrates the grip having textured surfaces incorporated within the grip;

[0037] FIG. 15 illustrates the grip having sound emitting means incorporated within the grip;

[0038] FIG. 16 illustrates the grip having Braille language symbols incorporated within the grip;

[0039] FIG. 17 illustrates the grip having visual cues incorporated within the grip;

[0040] FIG. 18 illustrates the grip having antibacterial agents incorporated within the grip; and

[0041] FIG. 19 illustrates the grip having a smelling element incorporated within the grip.

DETAILED DESCRIPTION

[0042] Those of ordinary skill in the art will realize that the following description is illustrative only and not in any way limiting. Other embodiments will readily suggest themselves to such skilled persons.

[0043] FIG. 1 discloses grip 100 for use on a railing, grab bar, pole, or hand support system. Grip 100 has a skin layer (or body) 104 and a four-way stretchable layer 112. Skin layer 104 has a top surface 102, which provides a comfortable, secure and safe gripping surface.

[0044] Skin layer 104 can be formed from a variety of materials. Examples of such materials include expanded vinyl, which is vinyl with a layer of foam that imparts a soft, textured feel; leather; plastic sheeting; plastic roll stock; any type of foam product; polyurethane; polyester; urethane; woven fabrics; rubber material; foil material; paper material; or any other material which could act as a covering to a hand support system. Any material utilized may be supported or unsupported. If skin layer 104 is formed from expanded vinyl, the vinyl surface may be smooth or textured.

[0045] In yet another aspect of the present invention, skin layer 104 of grip 100 has a luminescent quality. The luminescent skin layer glows in the dark to provide additional safety in cases of an emergency. Any methods known in the art for creating luminescence may be used. Some of the methods applying luminescence to a grip include heat transfer application processes, wet ink processes and sublimation ink processes. Skin layer 104 may have a thickness from about 0.5 millimeter to about 6.25 millimeters.

[0046] Skin layer 104 has a bottom surface 106 which is affixed to the top surface 110 of four-way stretchable material layer 112 by a permanent adhesive 108 that completely covers skin layer 104 from edge to edge. The permanent adhesive 108 can be any permanent adhesive known in the art which will permanently bond skin layer 104 to four-way stretchable material layer 112. An example of such a permanent adhesive is FLEXCON® adhesive V-402. However, it will be clear to one skilled in the art that other similar suitable adhesives may be used.

[0047] Four-way stretchable layer 112 has top surface 110 and a bottom surface 114, such that top surface 110 of four-way stretchable layer 112 conforms to and is permanently affixed to bottom surface 106 of skin layer 104. Four-way stretchable layer 112 may be comprised of any material that can simultaneously stretch in four directions, such as lycra, polyurethane, or a polyester material (e.g., MYLAR®). Bottom surface 114 of four-way stretchable layer 112 is releasably attached to the railing or hand support system by a layer of releasable adhesive 116. Releasable adhesive 116 can completely cover from edge to edge and is affixed to four-way stretchable layer 112 and provides releasable adhesion to the railing or hand support system. Releasable adhesive 116 provides secure adhesion to the railing or hand support system, but may be removed with a minimal amount of effort by peeling grip 100 off the railing or hand support system. Any adhesive having the characteristics of being secured to the railing as well as being easily

removed can be utilized. Any acrylic-based adhesive, rubber-based adhesive, or silicone-based adhesive can be utilized; a preferred example of a releasable adhesive is FLEXCON® V-58.

[0048] In one embodiment of grip 100 disclosed in FIG. 3, the lengthwise edges of skin layer 104 and four-way stretchable layer 112 may be tapered in thickness. FIG. 2 discloses a top view of grip 100. FIG. 3 discloses an embodiment of a grip having tapered edges. Tapering the edges of skin layer 104 and four-way stretchable layer 112 allows for the edges to overlap when coiling the grip around a corner (or other appropriate surface) of a railing or hand support system and at the same time to maintain a constant thickness of grip 100 despite the overlapping edges. In another embodiment, the edges are tapered but coiled in such a way that they do not overlap to provide still more friction for the user. In still another embodiment, the lengthwise edges of skin layer 104 and four-way stretchable layer 112 are not tapered for instances when the edges do not overlap.

[0049] FIG. 4A discloses another embodiment of the present invention. Grip 200 has a skin layer 204, a backing layer 212 and a four-way stretchable layer 220. Skin layer 204 has a top surface 202, which provides a comfortable, secure and safe gripping surface. Skin layer 204 can be formed from a variety of materials, as indicated above. In yet another aspect of the present invention, skin layer 204 of grip 200 of the present invention can have a luminescent quality.

[0050] Skin layer 204 has a bottom surface 206 which is affixed to top surface 210 of backing layer 212 by a permanent adhesive 208 which completely covers bottom surface 214 backing layer 212 from edge to edge. The permanent adhesive 208 can be any permanent adhesive known in the art that will permanently bond skin layer 204 to backing layer 212, as indicated above.

[0051] Backing layer 212 has a top surface 210 and a bottom surface 214, such that top surface 210 of backing layer 212 conforms to and is affixed to bottom surface 206 of skin layer 204. Backing layer 212 may be comprised of any material suitable for providing support including open cell foam, closed cell foam, felt, paper or rubber. Bottom surface 214 of backing layer 212 is permanently adhered to the top surface 218 of four-way stretchable material 220. The permanent adhesive attaching bottom surface 214 of backing layer 212 to top surface 218 of four-way stretchable material 220 can be any permanent adhesive known in the art which will permanently bond the surfaces, as indicated above. Four-way stretchable material 220 has the ability to stretch in all directions simultaneously. An example of a four-way stretchable material is a polyester film such as MYLAR®. Bottom surface 222 of four-way stretchable layer 220 is releasably attached to the railing or hand support system by releasable adhesive 224. Releasable adhesive 224 is affixed to and completely covers four-way stretchable material 220 from edge to edge and provides releasable adhesion to the railing or hand support system. Releasable adhesive 224 provides secure adhesion

to the railing or hand support system but may be removed with a minimal amount of effort by peeling grip 200 off the railing or hand support system. Any adhesive having the characteristics of being secured to the railing as well as being easily removed can be utilized. Any acrylic-based adhesive, rubber-based adhesive, or silicone-based adhesive can be utilized; a preferred example of a releasable adhesive is FLEXCON® V-58.

[0052] In one embodiment of grip 200 disclosed in FIG. 4A, the lengthwise edges of skin layer 204, backing layer 212 and four-way stretchable layer 220 may be tapered in thickness. FIG. 5 discloses a top view of grip 200. FIG. 6 discloses an embodiment of a grip having tapered edges. Tapering the edges of skin layer 204, backing layer 212 and four-way stretchable layer 220 allows for the edges to overlap around a corner (or other appropriate surface) of a railing or hand support system and at the same time to maintain a constant thickness of grip 200 despite the overlapping edges. In another embodiment, the edges are tapered but coiled in such a way that they do not overlap to provide still more friction for the user. In still another embodiment, the lengthwise edges of skin layer 204, backing layer 212 and four-way stretchable layer 220 are not tapered for instances when the edges do not overlap but a consistent thickness of grip is desired.

[0053] FIG. 4B illustrates yet another embodiment of the present invention a system for providing a safe, secure, releasably attachable grip on a railing, grab

bar, or pole. Similar reference numbers are used to designate similar features. In this embodiment, grip 230 has a skin layer 232 that can be releasably attached to a railing. Skin layer 232 has a first side 236 and a second side 234, which provides a comfortable, secure and safe gripping surface. Skin layer can be formed from a variety of materials. Examples of such materials are disclosed above.

[0054] Referring still to FIG. 4B, skin layer 232 also has a lower surface, which is releasably attached to the railing or hand support system by a releasable adhesive 238. The releasable adhesive 238 is affixed (or adhered) to and completely covers skin layer from edge to edge and provides releasable adhesion to the railing or hand support system. Releasable adhesive 238 can be applied to the skin layer 232 by various methods known in the art. Examples include wet application, spray application, or pressure sensitive application. The releasable adhesive can be applied to preferably to the entire lower surface of the skin layer, specifically from edge to edge, or in sufficient areas to provide adhesion to an outer surface of a railing, grab bar, or pole. Releasable adhesive 238 provides secure adhesion to the railing or hand support system but may be removed with a minimal amount of effort by peeling grip off the railing or hand support system. Any adhesive having the characteristics of being secured to the railing as well as being easily removed can be utilized. Any acrylic-based adhesive, rubber-based adhesive, or silicone-based adhesive can be utilized; a preferred example of a releasable adhesive is FLEXCON® V-58.

[0055] FIGS. 7A through 7C disclose a method or procedure for manufacture of grip 100. For convenience, the component parts of grip 100 are numbered as in FIG. 1 designating grip 100. The method or procedure for manufacture of grip 100 begins with the act of FIG. 7A of providing a skin layer 104 and applying permanent adhesive 108 to skin layer 104.

[0056] Next, four-way stretchable material layer 112 is permanently adhered to skin layer 104 as disclosed in FIG. 7B. As previously set forth, four-way stretchable layer 112 may be comprised of any material that can simultaneously stretch in four directions, such as a polyester material; an example is MYLAR®. Then, a releasable adhesive 116 is applied from edge to edge to four-way stretchable material layer 112, as illustrated in FIG. 7C.

[0057] FIGS. 8A through 8E discloses a method or procedure for manufacture of grip 200. For convenience, the component parts of grip 200 are numbered as in FIG. 4A designating grip 200. The method or procedure for manufacture of grip 200 begins with the act of FIG. 8A of providing a skin layer 204 and applying permanent adhesive 208 from edge to edge of skin layer 204.

[0058] Next, backing layer 212 is permanently adhered to skin layer 204 as disclosed in FIG. 8B. As previously set forth, backing layer 212 may be

comprised of any material suitable for providing support including open cell foam, closed cell foam, felt, paper or rubber. Next, as disclosed in FIG. 8C, a permanent adhesive 216 is applied to backing layer 212. Then, as shown in FIG. 8D, a four-way stretchable layer 220 is adhered to backing layer 212. Finally, as disclosed in FIG. 8E, a releasable adhesive 224 is applied from edge to edge to four-way stretchable layer 220.

[0059] FIG. 9 discloses a system of providing a secure, safe, releasably attachable grip on a railing. The system of the present invention can be utilized with any type of railing or hand support system 302. Grip 300 can have a four-way stretchable material layer 304 with an inner and outer surface, skin layer 306 which has an inner layer and an out layer, the inner layer of the skin layer 306 is permanently adhered to the outer surface of the four-way stretchable material layer 304. Four-way stretchable material layer 304 is releasably adhered to railing 302.

[0060] FIG. 10 discloses another embodiment of a system of providing a secure, safe, releasably attachable grip on a railing. The system of the present invention can be utilized with any type of railing or hand support system 402. Grip 400 can have a four-way-stretchable layer 404 with an inner and outer surface, backing layer 406 with an inner and outer surface, and skin layer 408 which has an inner surface and an outer surface, the inner surface of the skin layer 408 is permanently adhered to the outer surface of the backing layer 406. The

inner surface of backing layer 406 is permanently adhered to four-way stretchable layer 404. Four-way stretchable layer 404 is releasably adhered to railing 402.

[0061] FIG. 11 discloses a method of enveloping the railing with the grip of the present invention. While alignment targets can be utilized, another embodiment contemplated does not utilize alignment targets. In one embodiment, grip 500 can have alignment targets 506 along axis 510 parallel to lengthwise edge 508 of grip 500. Next, alignment targets 504 are placed on railing 502. Next, grip 500 is placed on the railing so that the center lengthwise axis of the grip is centered on the axis parallel to the length of railing 502. Next, grip 500 alignment targets 506 are aligned with railing 502 alignment targets 504. Finally, grip 500 has a width substantially similar to the circumference of railing 502 such that when grip 500 is folded around railing 502 edges 508 of grip 500 can abut. It is preferable that the edges do not abut or overlap since this can create an environment for water and germs to infiltrate. The water can cause the materials to pull away from the outer surface of the railing, pole, or grab bar. The environment created can also become a breeding ground for germs.

[0062] In another method of folding, FIG. 12 discloses a method of coiling a grip 600 about a railing 602. This can be accomplished on a straight piece of railing or preferably around corners or odd-shaped areas of a railing, pole, or grab bar. Next, grip 600 is coiled, placing the tapered edge of grip 600 around the

railing such that the tapered edges of grip 600 overlap. The length of railing 602 may be fully covered by grip 600 such that the fully covers railing 602 and the thickness of grip 600 remains constant. In an alternative embodiment, grip 600 may be coiled around the railing so that the edges do not overlap to provide additional friction to the user.

[0063] FIG. 13 illustrates a grip incorporating (or coupled with) a light emitting means (or light emitter) within the grip. As stated above, a luminescent material may be used to enhance any graphic material that may be on the surface of grips 100 and 200. Other materials that may be used to create this effect include phosphorescent chemicals (e.g., strontium), low-grade radiant materials, electrically-stimulated phosphorescent materials, fiber optics, and luminescent pigments. These chemicals can be included in the inks used create or outline graphics 700 which can be laminated or affixed to the grip surface. Likewise, the luminescence material can be incorporated into the materials (made integral with or coupled with the materials) used to create the skin layer. Additionally, a graphic or design can be applied to or integral with this luminescence material skin layer, such that, when it is illuminated, the graphic appears. Likewise, a reflective material can be utilized to illuminate an area encompassing a grip of the present invention.

[0064] In addition, electrically stimulated materials can also be utilized to create a luminescent effect. Examples of these materials include inks, plastic materials, and fiber optics. A low level electrical current may be passed through the grip surfaces to emit light by, for example, a light-emitting filament 702. An independent power source such as a battery may be used to provide the current source. A means for turning on the current in the presence of no light or low light situations, such as a solar switch, can be used to complete the circuit. Additionally, a pressure sensitive switch can be utilized, which can transmit a signal to a preprogrammed microchip and power source. Once the light emitting means is activated, the luminescent are activated.

[0065] Another source of light can be provided by placing the grip over a light emitting back-drop material. In this instance, a flexible light emitting diode (LED) material can be used. The examples given herein are examples only, and should not limit the present invention in any way.

[0066] FIG. 14 illustrates a grip 800 incorporated with (or coupled with) textured surfaces. A textured surface can be adhered to or integral with the grips 100 or 200. Textured surface 802 can be formed from a variety of materials. For instance, hard rubber, soft rubber, plastics of any type, woven material, metals, and any other material known in the art suitable for this purpose. In addition, patterns, such as Braille symbols for the vision impaired, or safety instructions can

be molded, formed, disposed on, machined into, and the like, into the surface of the grip. FIG. 16 illustrates the use of Braille symbols 806 on a grip 804. The examples given herein are examples only, and should not limit the present invention in any way.

[0067] A textured surface that is integral with the grip is any shape, design, or aggressive tread pattern that is embossed, stippled, perforated, or formed into the skin layer.

[0068] An additional property of the textured grip is an inherent insulation effect. The insulating properties as well as the thickness of the textured surface 802 acts as a natural insulator. In extremely hot environments, the grip acts to remove the thermal energy from the railing or pole to allow for a user to touch the grip. Likewise, in cold environments, the grip acts to insulate the user from the low temperature of a metal railing or pole.

[0069] In addition, fire retardants such as bromine based retardants, phosphate based retardants, or Tetrabromobisphenol A (TBBPA) epoxy can be disposed on or made integral with the textured surface making the grip fire resistant and safer for human use.

[0070] FIG. 15 illustrates a grip 900 having sound emitting means (or audible unit or sound emitter) 902 incorporated within (or coupled with) the grip. Sound-emitting means 902 can be activated in several ways. A pressure sensitive switch can be utilized, which can transmit a signal to a preprogrammed microchip or power source. Once the sound emitting means is activated, the speakers that emit the sound are activated. In one embodiment, each sound unit can be independently powered by battery pack.

[0071] In another embodiment, a solar switch may be used to turn on the sound-emitting means. In this embodiment, when the lights are turned off, a signal is sent to a preprogrammed microchip and power source that turns on the sound emitting means. The examples given herein are examples only, and should not limit the present invention in any way.

[0072] FIG. 17 illustrates a grip 1000 having visual cues 1002 incorporated within (or coupled with) the grip. The visual cues 1002 can be of any shape 1004 or design 1006 and can include logos 1008 or other graphics. The visual cues 1002 are designed to visually attract the attention of the user. The examples given herein are examples only, and should not limit the present invention in any way.

[0073] FIG. 18 illustrates a grip 1010 having germ-fighting agents 1012, such as antibacterial or antimicrobial agents incorporated within (or coupled with)

the grip 1010 to prevent the spread of germs. The antibacterial or antimicrobial agents can be disposed on or made integral with the grip 1010. The antibacterial or antimicrobial agents can be at various concentrations depending upon the agents utilized and the environments to which the grip is placed. The antibacterial or antimicrobial agents can be incorporated into graphics disposed on the skin layer, as well. An example of a commonly used antibacterial/antimicrobial agent is triclosan (a broad spectrum germicide). Any antibacterial/antimicrobial agent known in the art can be utilized with the grip. The examples given herein are examples only, and should not limit the present invention in any way.

[0074] FIG. 19 illustrates a grip 1020 having an odor element 1022 incorporated within (or coupled with) the grip 1020. The odor element 1022 can be any scented or perfumed element, which can incorporate an odor with the surface of the grip that can be released into the air in order to stimulate the olfactory senses. The smelling element can also be integral with the skin layer, such that the entire skin layer has an odor. A common “scratch-and-sniff” element, which allows a user to scratch an area and then smell the desired odor, can be utilized. The examples given herein are examples only, and should not limit the present invention in any way.

[0075] Considering that the grip can be disposed on railings, grab bars, and pole in relatively high traffic areas, the grip is almost certain to become soiled or

dirty. It is contemplated that the grip can easily be cleaned using common maintenance products. It is also contemplated that the grip can retain the cleaning products, or be made integral with the cleaning products, to provide the ability for ease in cleaning and further reduce soiling of the grip.

[0076] While the invention has been described with reference to an exemplary embodiment, it will be understood by those skilled in the art that various changes may be made and equivalents may be substituted for elements thereof without departing from the scope of the invention. In addition, many modifications may be made to adapt a particular situation or material to the teachings without departing from the essential scope thereof. Therefore, it is intended that the invention not be limited to the particular embodiment disclosed as the best mode contemplated for carrying out this invention, but that the invention will include all embodiments falling within the scope of the appended claims.

What is claimed is: